

FIG. 1
BACKGROUND ART

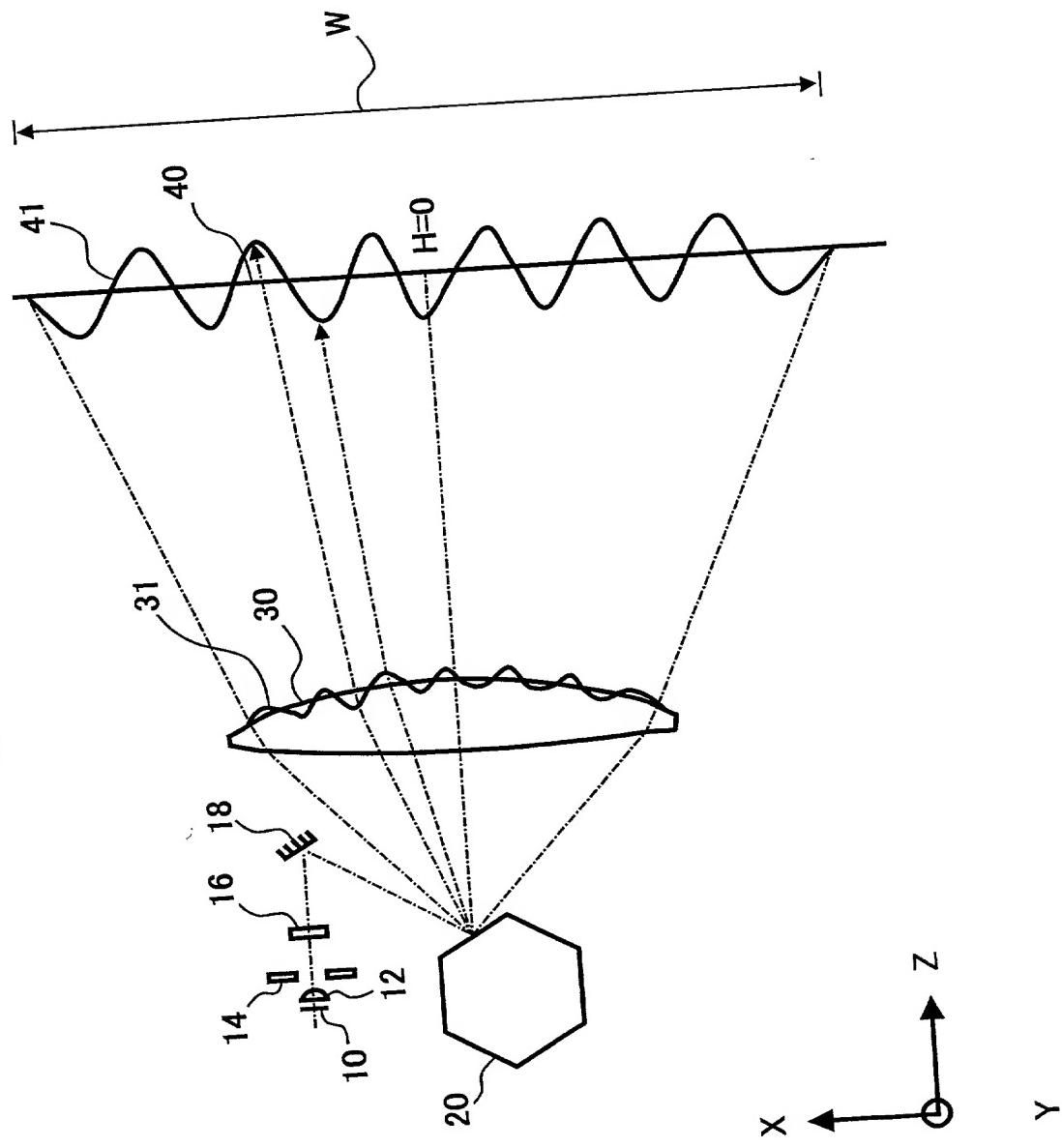


FIG. 2

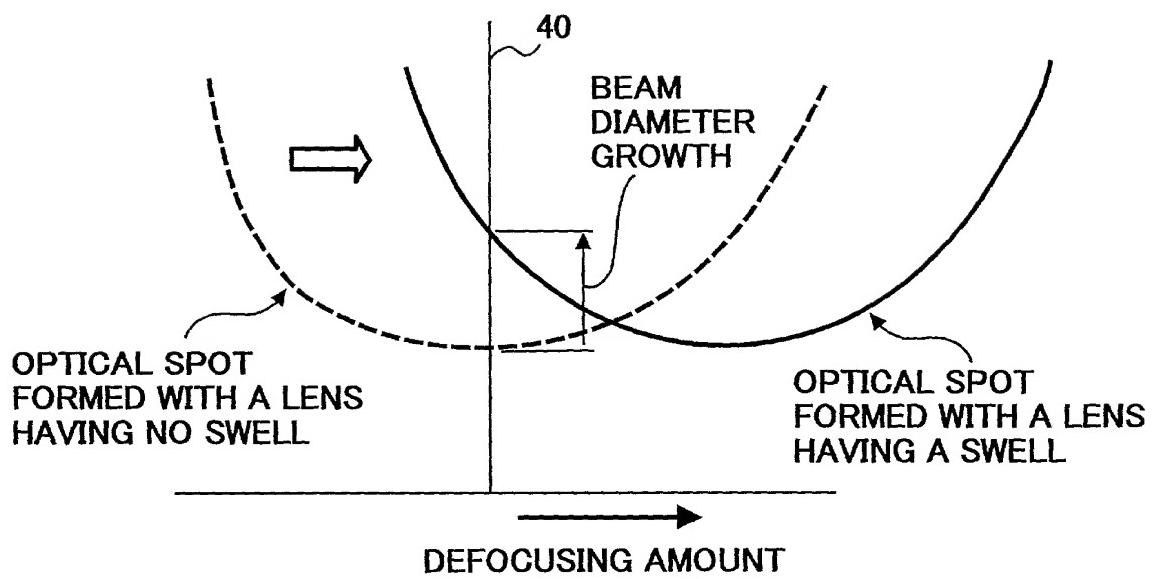


FIG. 3

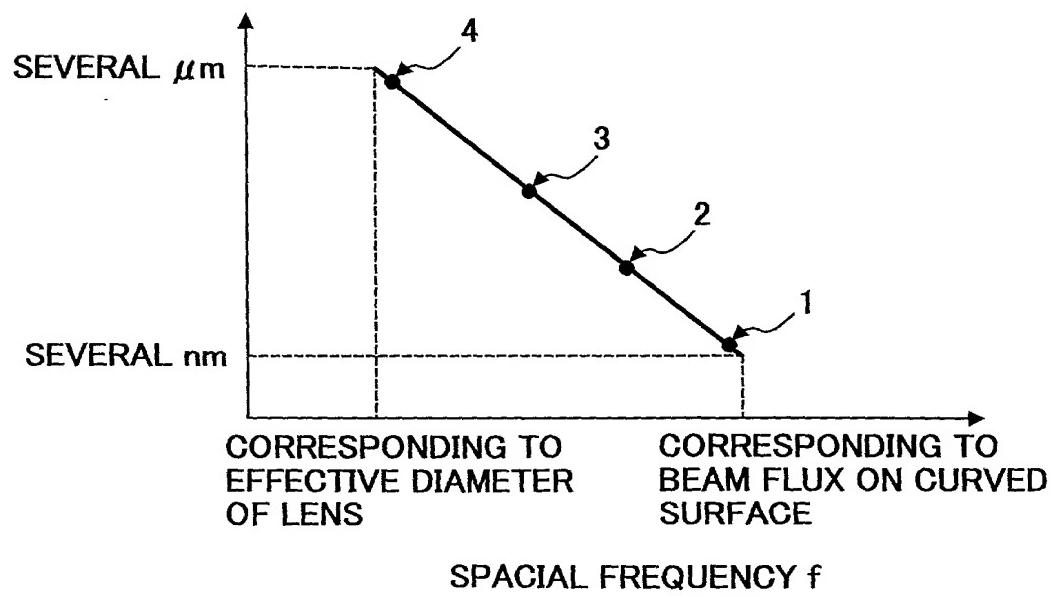


FIG. 4A

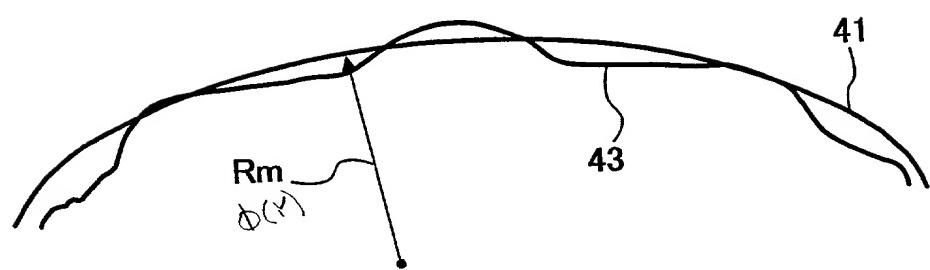


FIG. 4B

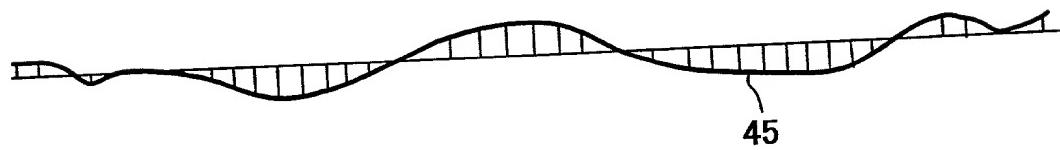


FIG. 5A

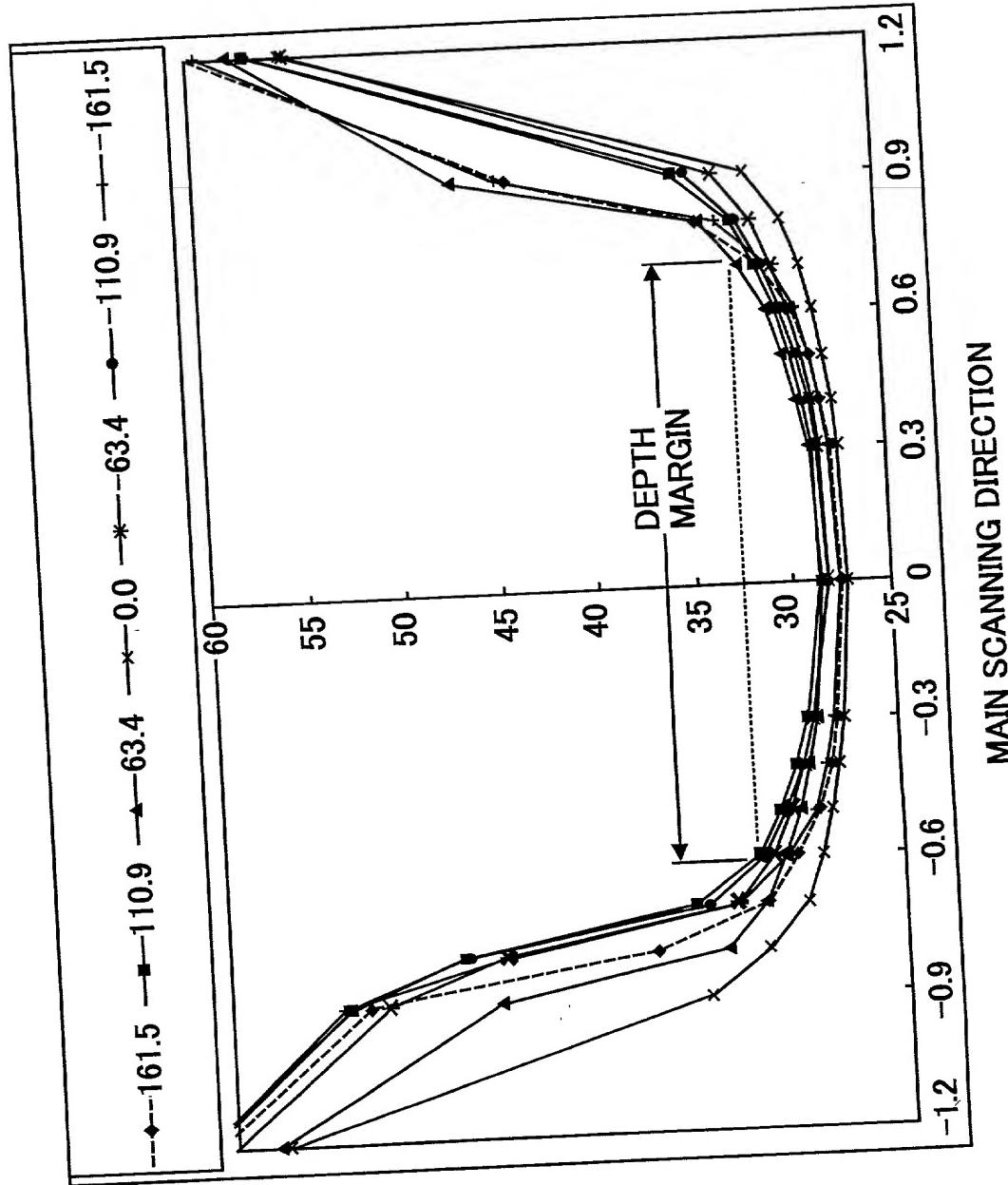


FIG. 5B

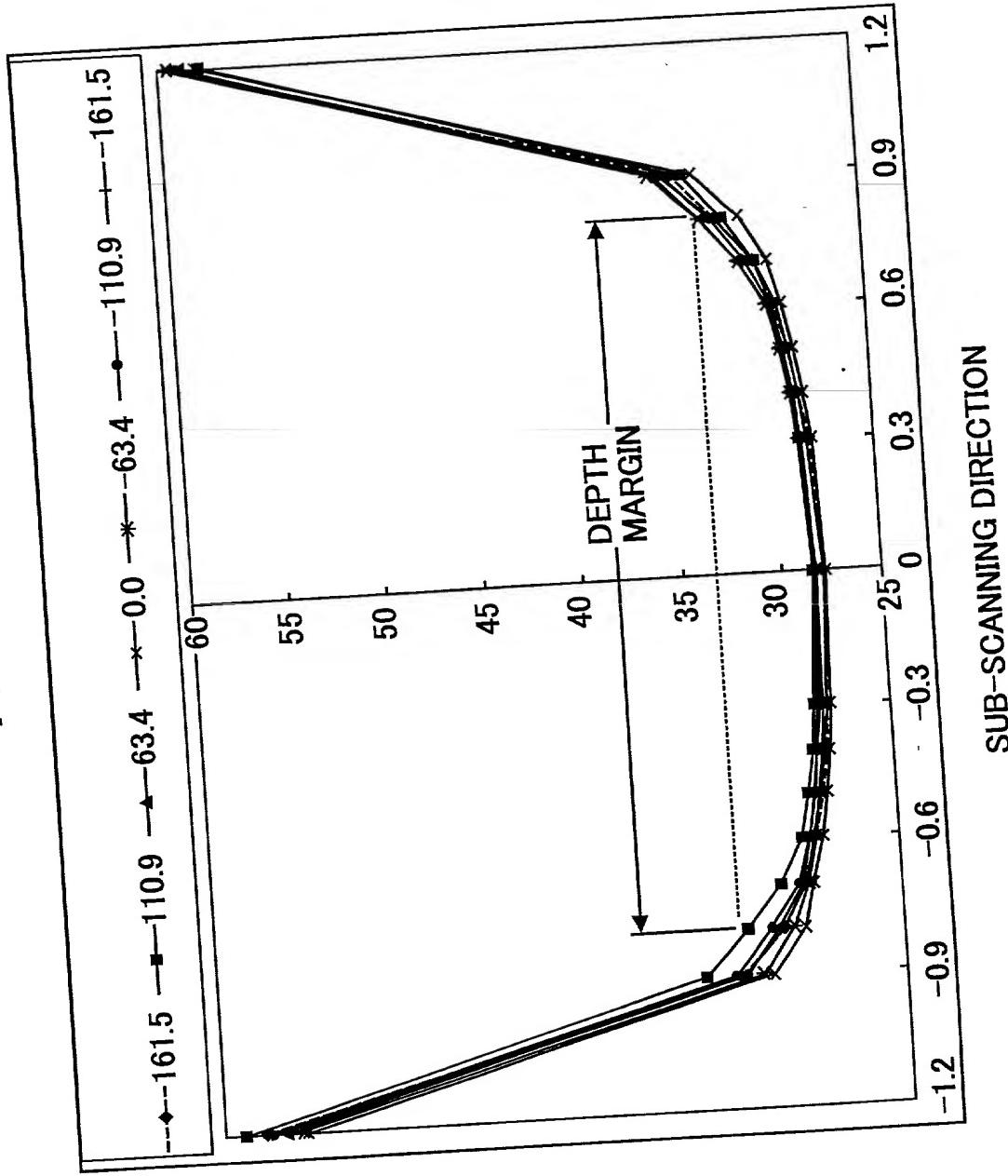


FIG. 6

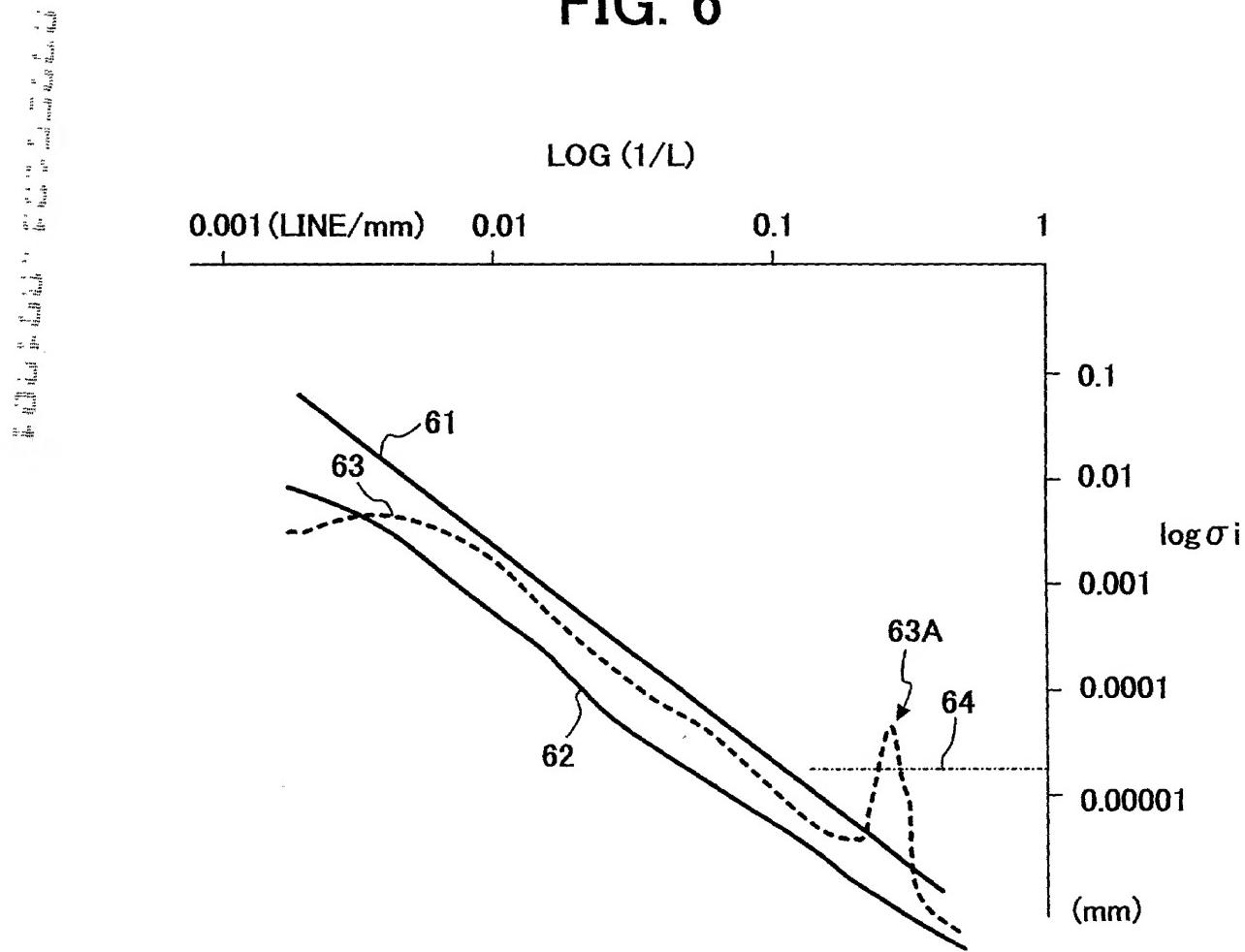


FIG. 7

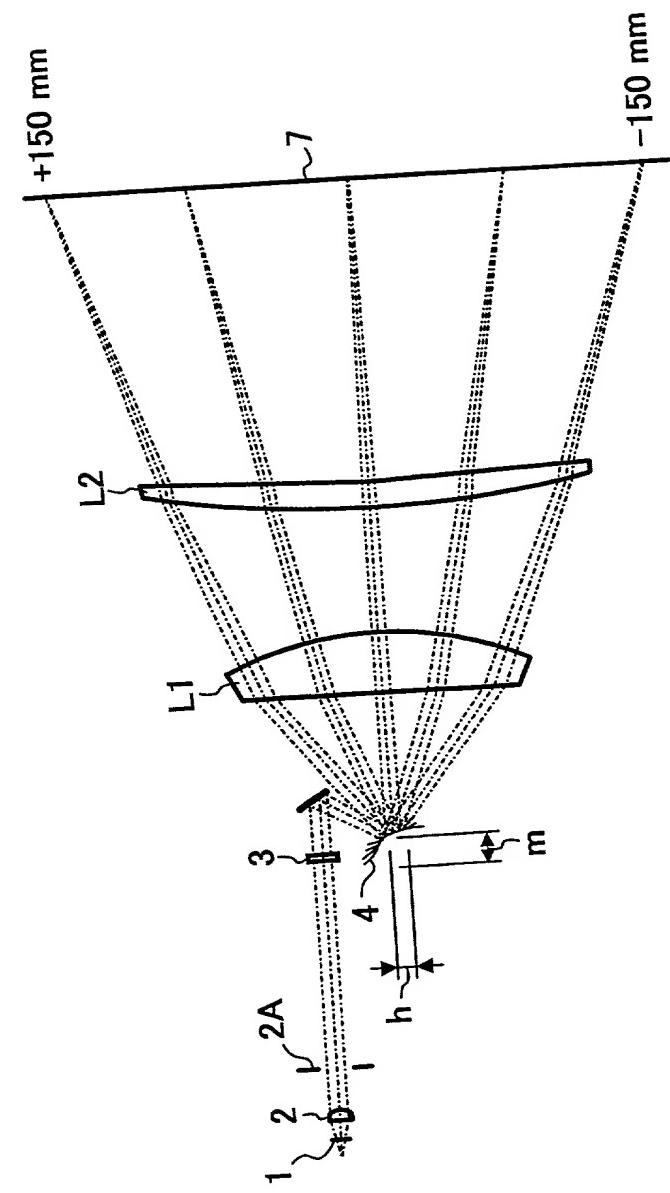


FIG. 8

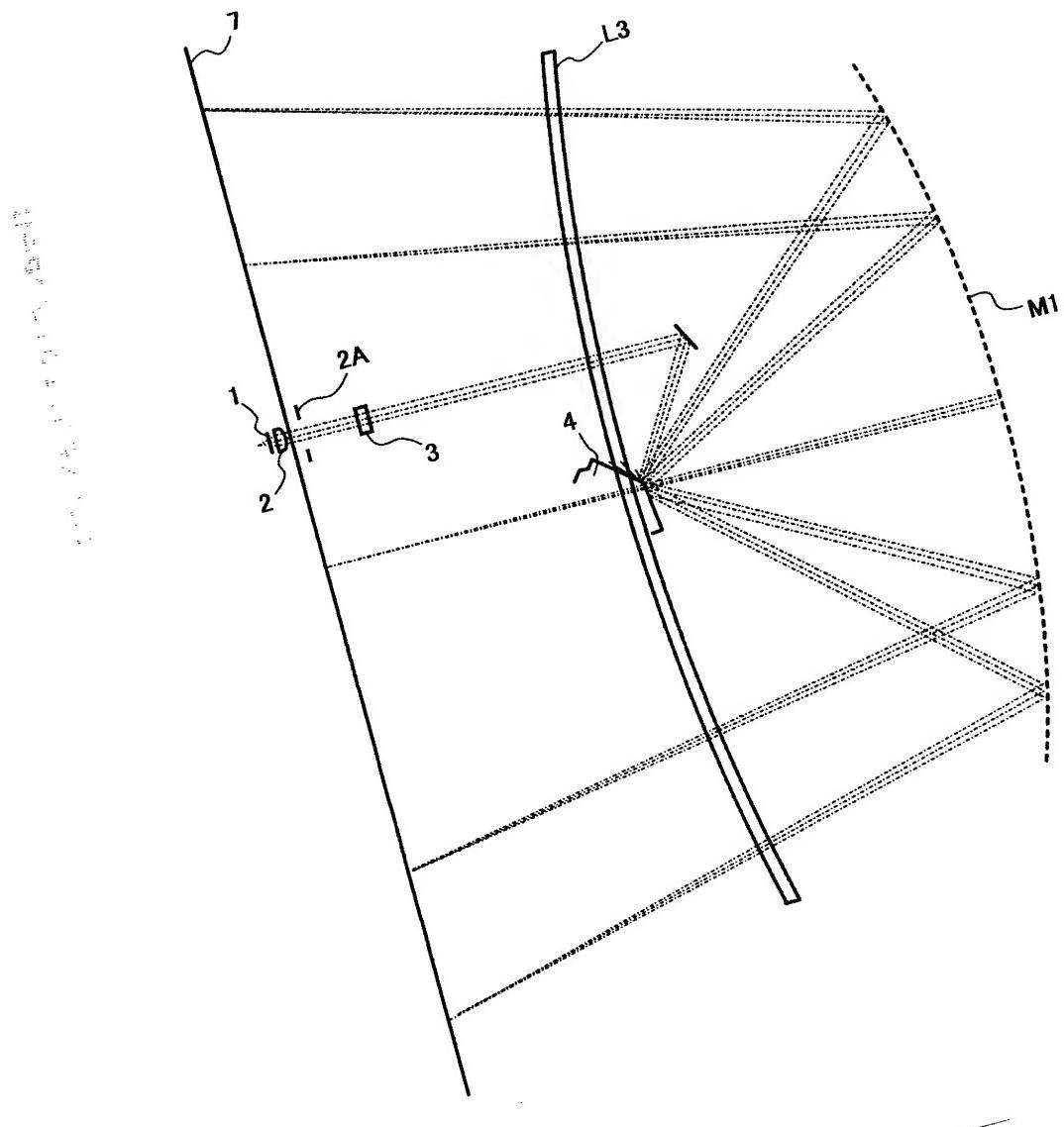


FIG. 9A

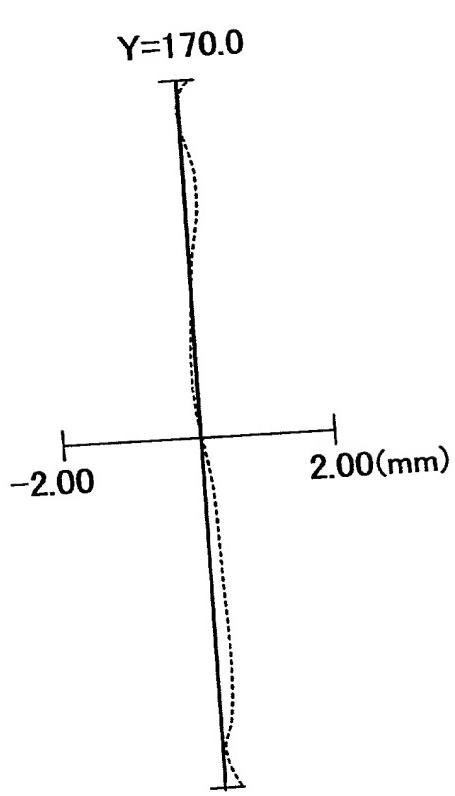
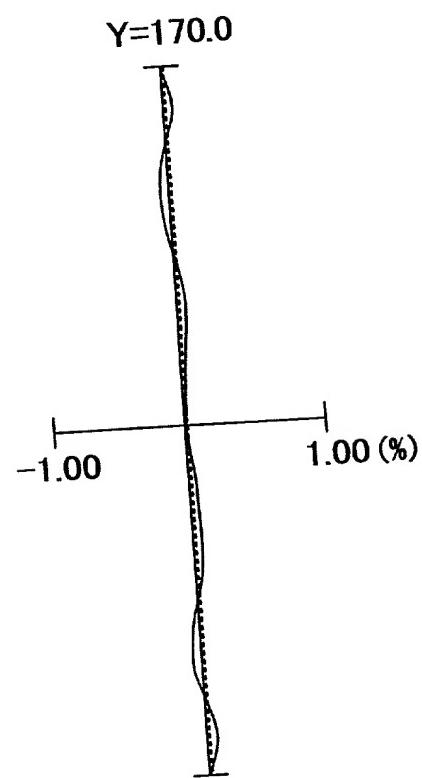


IMAGE SURFACE
CURVATURE

FIG. 9B



LINEARITY
 $f\theta$ CHARACTERISTIC

FIG. 10

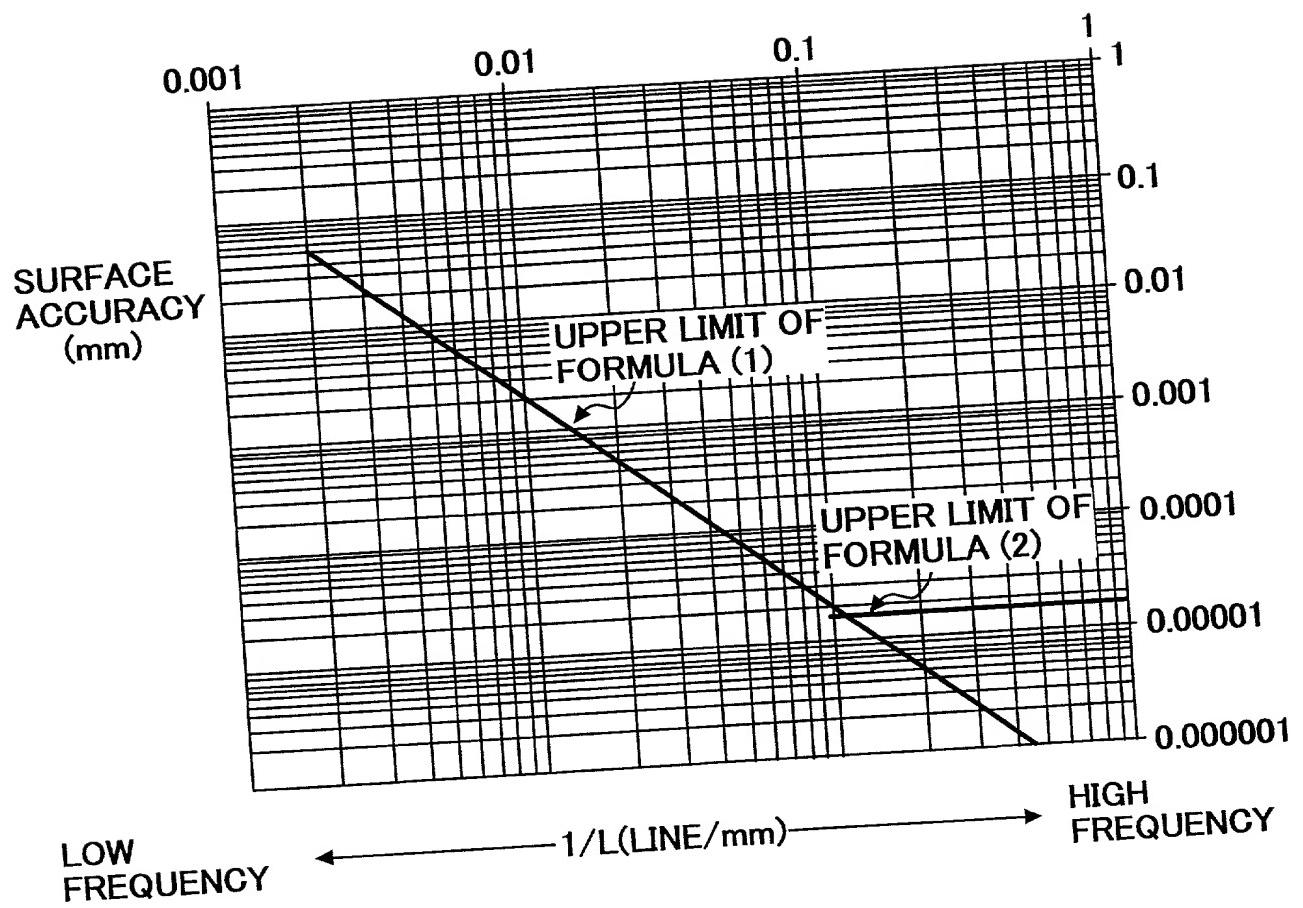


FIG. 11

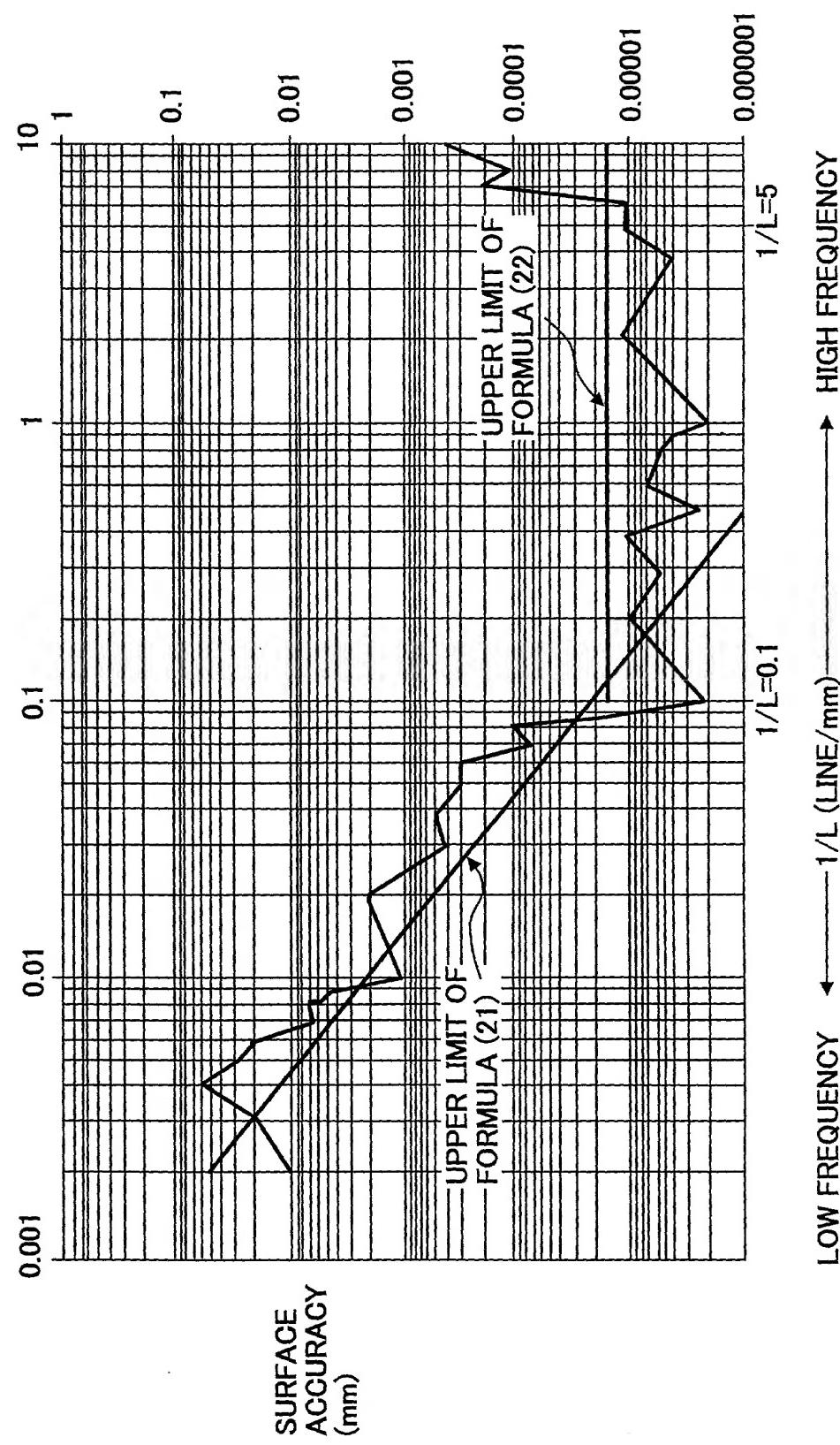


FIG. 12A

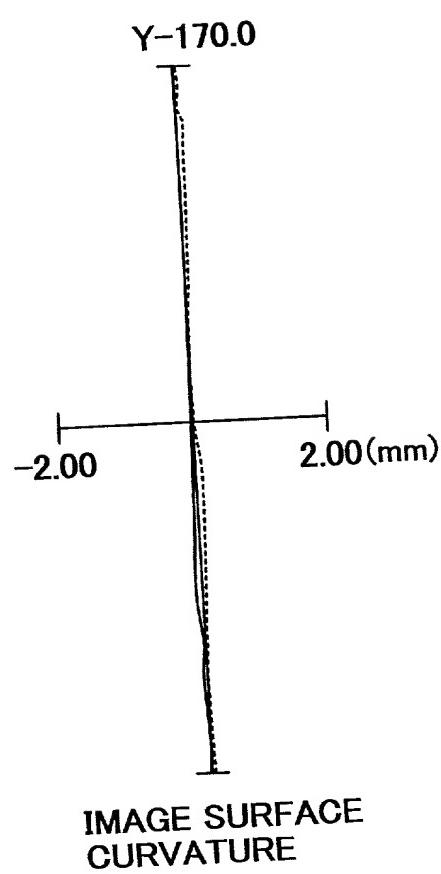


FIG. 12B

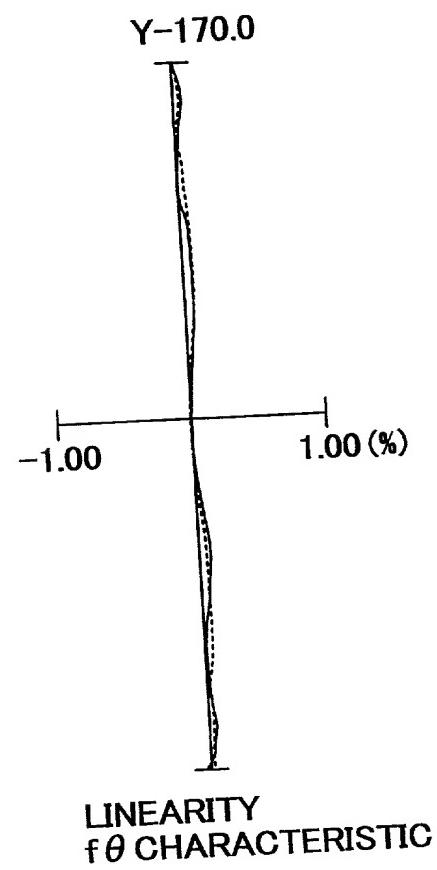


FIG. 13A

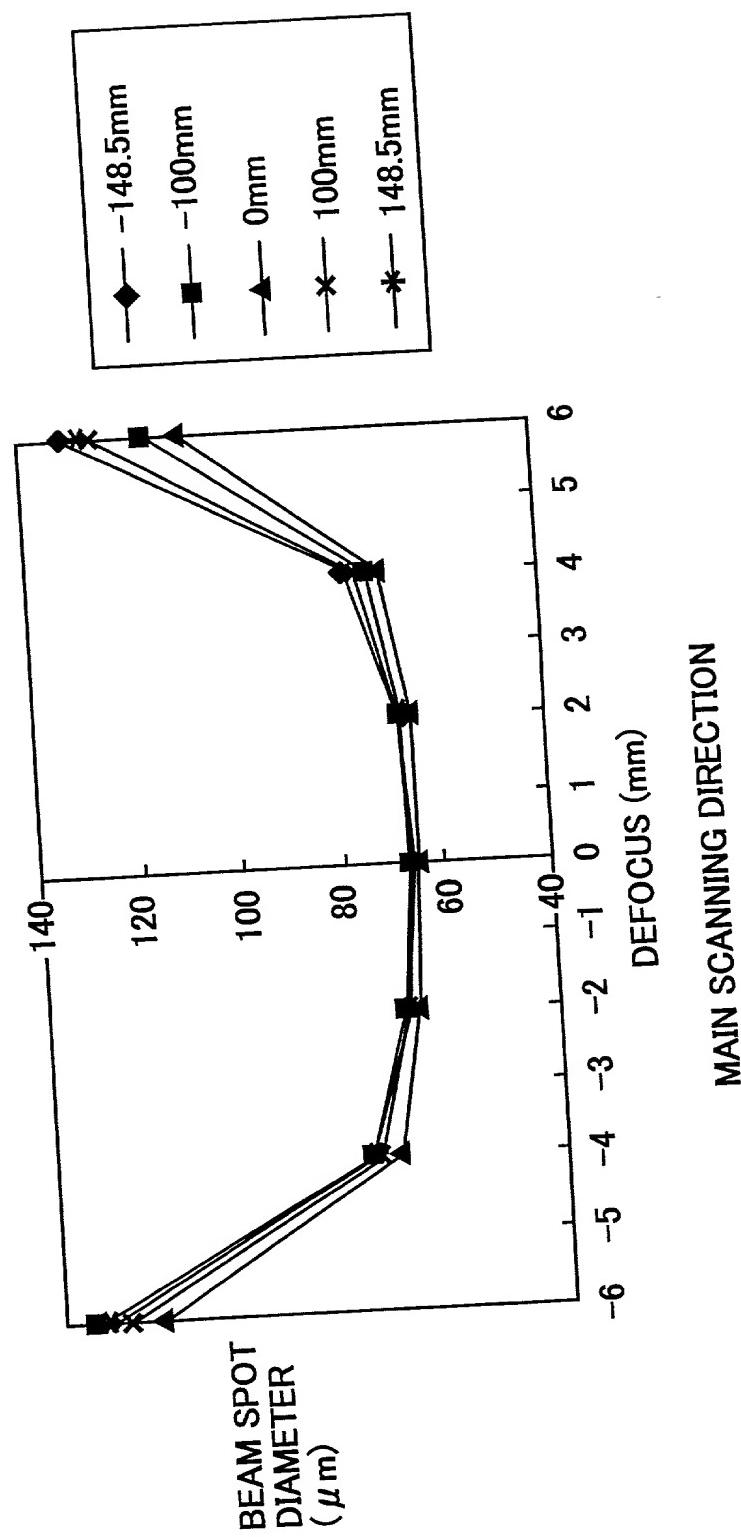
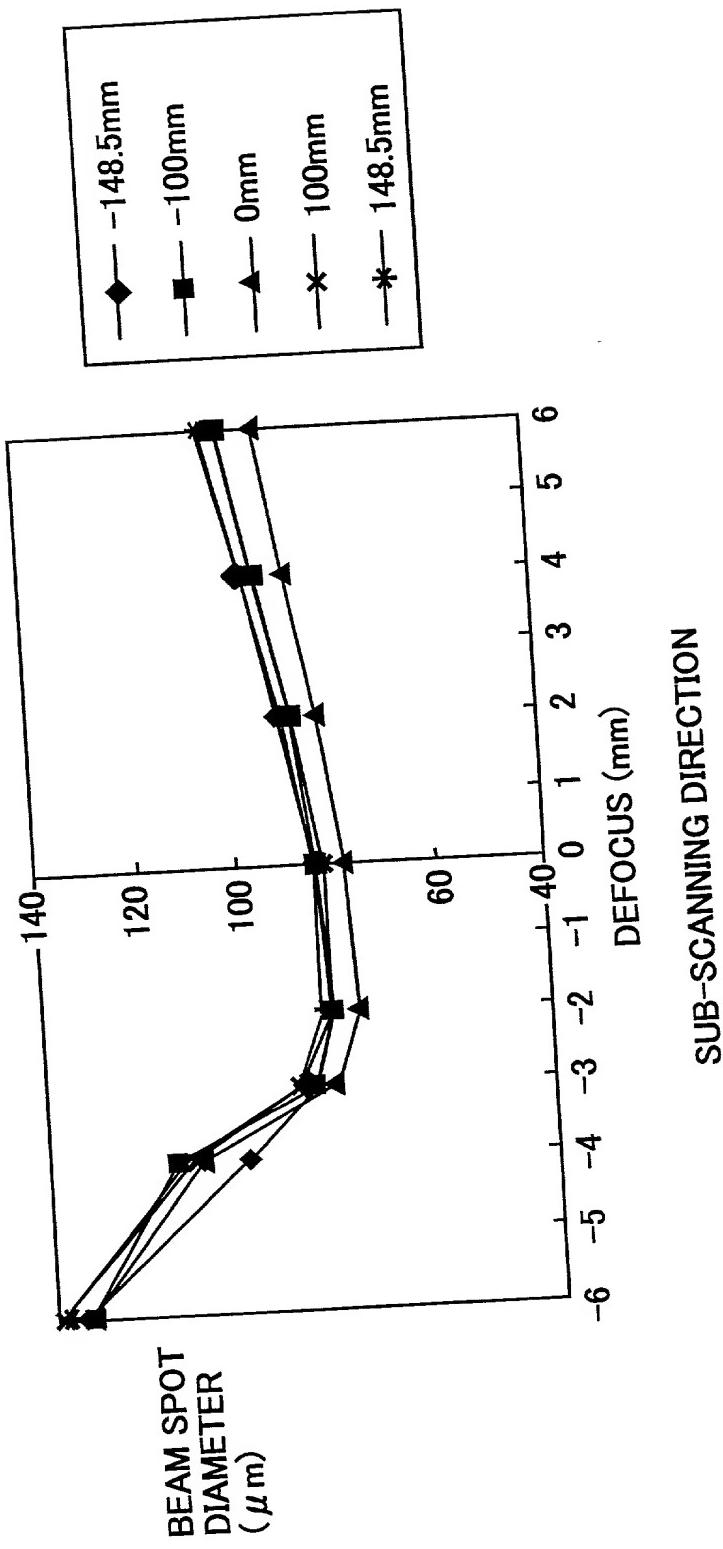


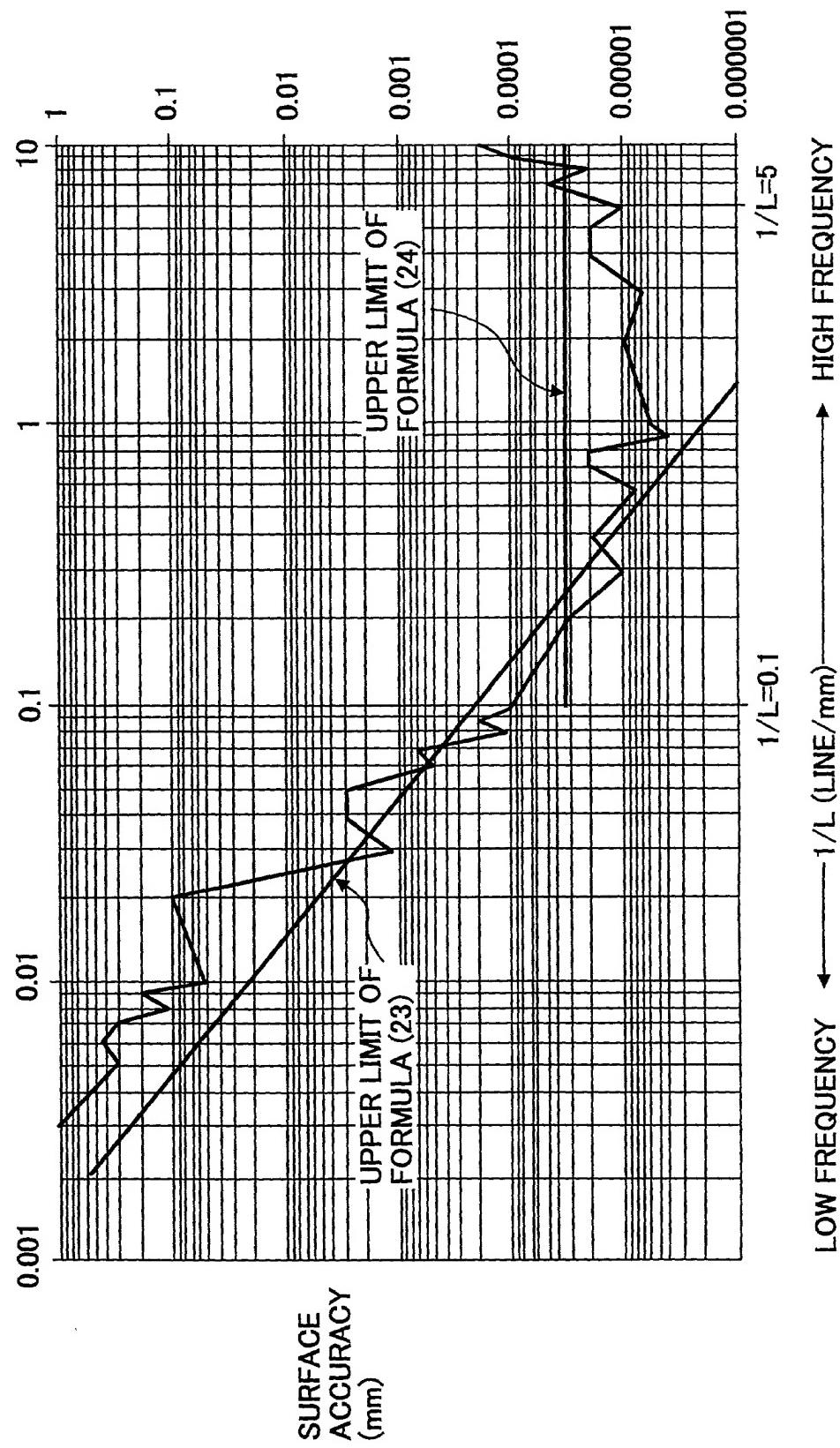
FIG. 13B



$$\frac{d^2y}{dx^2} \left(\frac{dy}{dx} \right)^2 = 0$$

$\frac{dy}{dx}$ max $\frac{dy}{dx}$ min y max y min t α
 $\frac{dy}{dx}$ max $\frac{dy}{dx}$ min y max y min t α

FIG. 14



100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123

FIG. 15

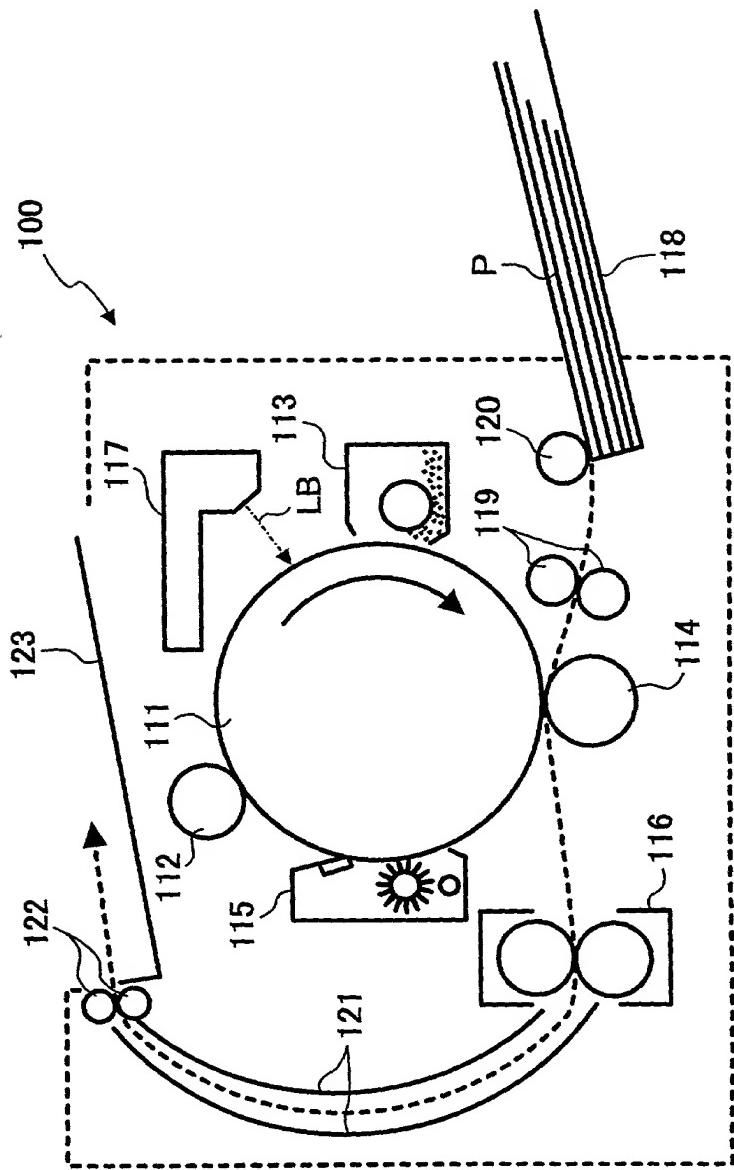


FIG. 16

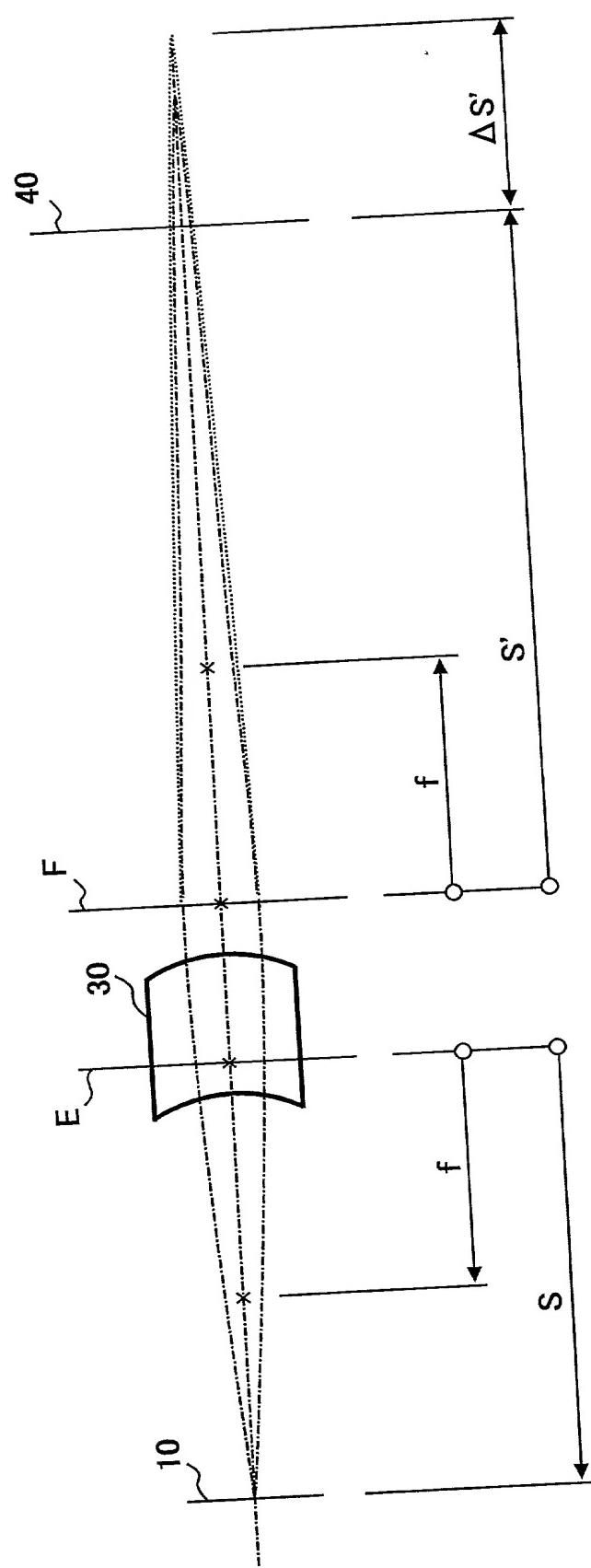


FIG. 17A

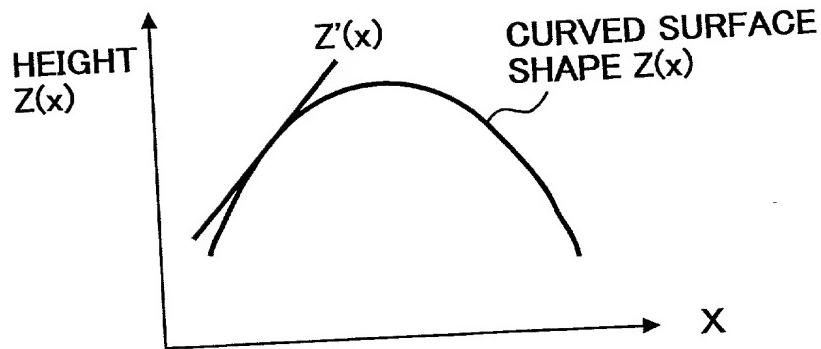


FIG. 17B

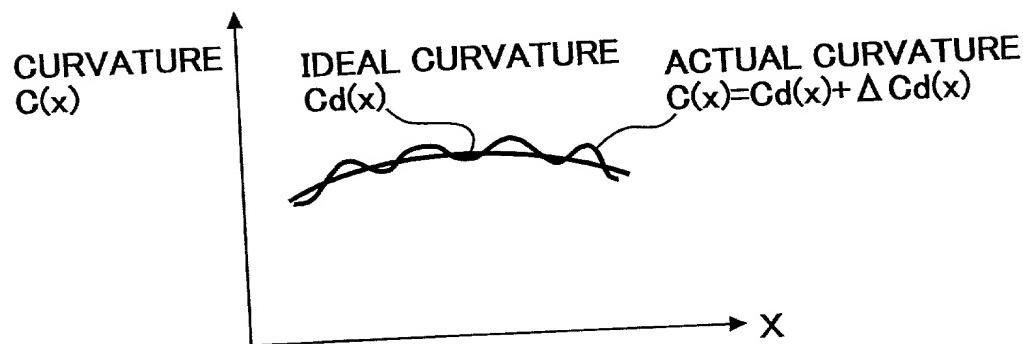


FIG. 17C

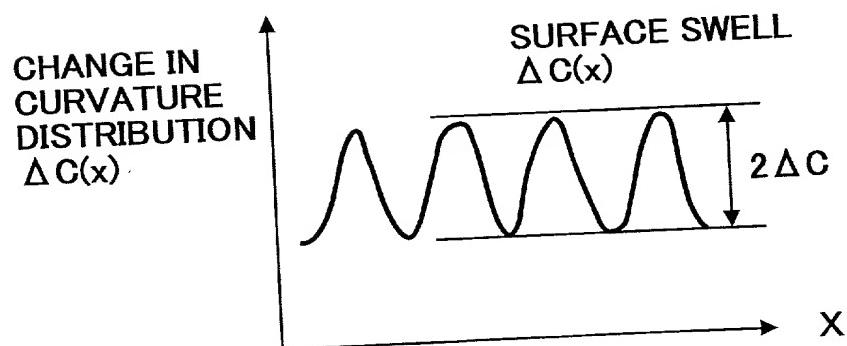


FIG. 17D

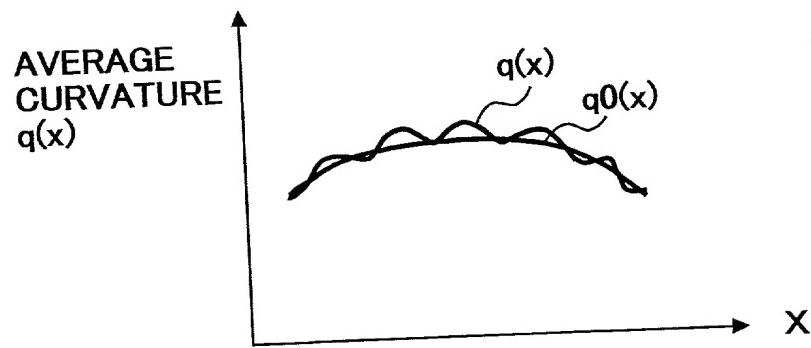


FIG. 17E

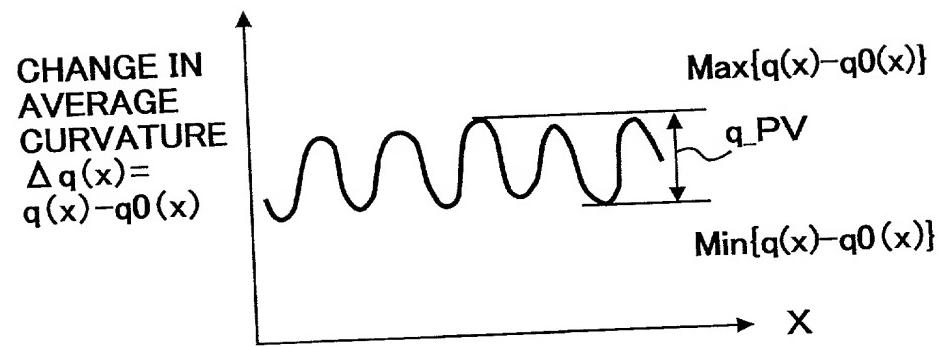


FIG. 18

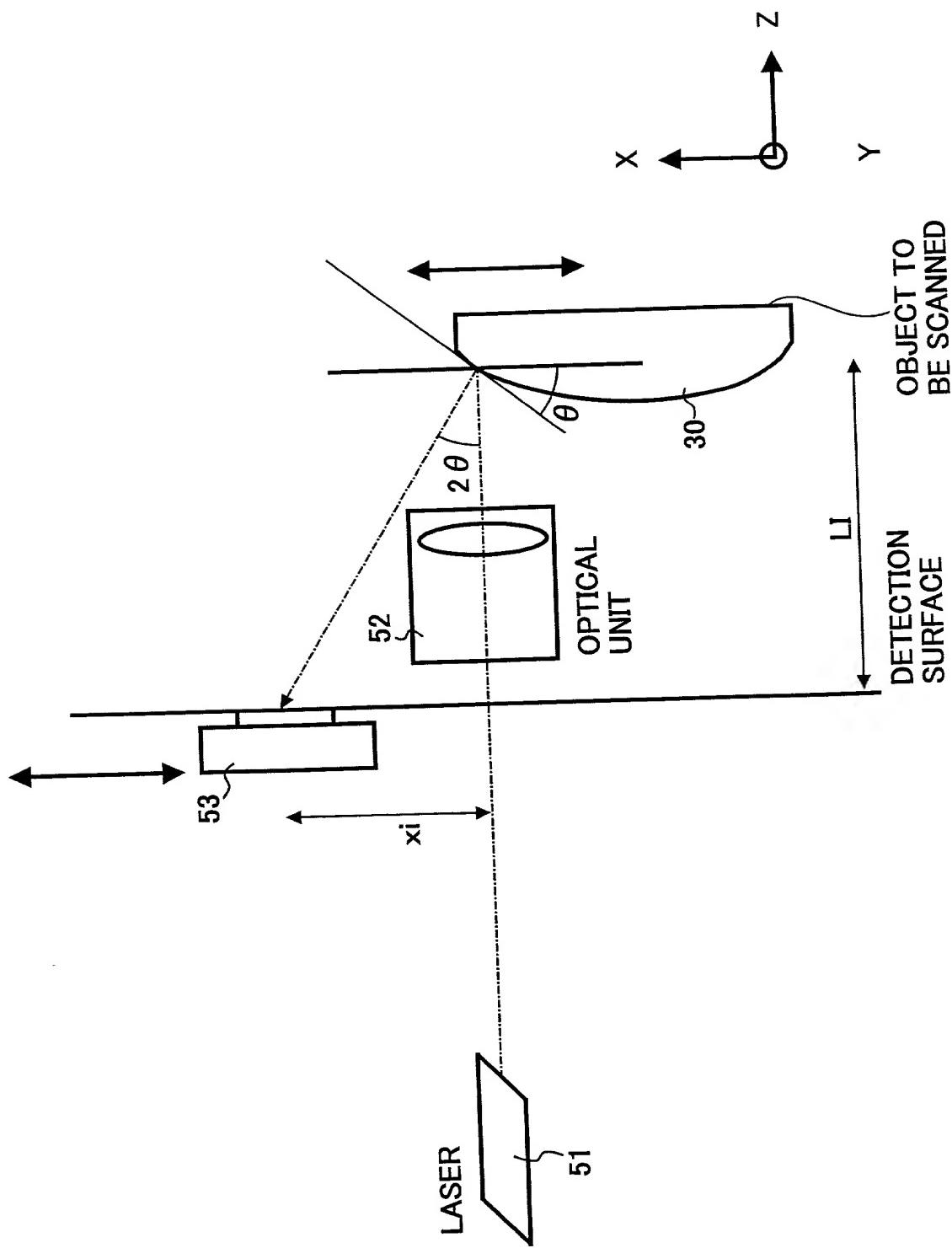


FIG. 19

